

Sequence Listings

Sequence 1 – Human cDNA sequence of PARP-1

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1  cggccgcccc gccccggggg cagggaagc ctaaattacg gaattaccgc gagcaaggag
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5401 ttaaaaatta agtggaagaa gaattacttt aatcaactaa caagcaataa taaatgaaa
5461 cttaaaat

Sequence 2 – Human cDNA sequence of PARP-2

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1801 gatctgatct tcaagcaaga aaataagcag tgtgtactt gtgaatttg tgatatttta
1861 tgtaataaaa actgtacagg tctaaaaaaa aaaaaaaaaa aaaaaaaaaa

Sequence 3 – Human cDNA sequence of PARP-3

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Sequence 4 – Human gDNA sequence of Tankyrase 1

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4321 caacagccgc agagcagaag acctagtga tgcctgctgg tgaaggccag atcagatttc
4381 aacctgggac tggattacag aggattgttt ctaataacaa catcaatatt ctagaagtcc
4441 ctgacagcct agaaataagc tgtttgtctt ctataaagca ttgctatagt g

Sequence 5 – Human mRNA sequence of Tankyrase 2

1 cgcgccgcct cgctagccga aacctgccca gccggtgcc ggccactgcg cacgcgcggg
61 acgacgtcac gtgcgtccc ggggctggac ggagctggca ggaggggcct tgccagcttc
121 cgccgccgcg tcgttcagg acccgacgg cggattcgcg ctgcctccgc cgccgcggg
181 cagccggggg gcagggagcc cagcgagggg cgcgctggg cgcgccatg ggactgcgcc
241 ggatccggtg acagcaggga gccaagcggc cggggccctg agcgctctt ctccggggg
301 cctgccctc ctgctcgcg ggccggggct cctgctccg ttgctggcg tttgctggc
361 tttggcggcg gccaggatca ttcgggctg ccgctgcgc gccgggggag cggcctgcg
421 gagcgccgcg gccaggccg tggagccggc cgcccgagag ctgttcgagg cgtgccgca
481 cggggacgtg gaacgagtca agaggctggt gacgcctgag aagggtgaaca gccgcgacac
541 ggcgggcagg aaatccaccc cgtgcactt cgccgcagg tttgggcgga aagacgtagt
601 tgaatattg ctccagaatg gtgcaaatgt ccaagcacgt gatgatggg gccttattcc
661 tctcataat gcatgctct ttggtcatgc tgaagtagt aatctcttt tgcgacatg
721 tgcagacccc aatgctcgag ataattgaa ttatactct ctccatgaag ctgcaattaa
781 aggaaagatt gatgtttgca ttgtgctgt acagcatgga gctgagccaa ccatccgaaa
841 tacagatgga aggacagcat tggatttagc agatccatct gccaaagcag tgcctactgg
901 tgaatataag aaagatgaac tcttagaaag tgccaggagt ggcaatgaag aaaaaatgat
961 ggctctactc acaccattaa atgtcaactg ccacgcaagt gatggcagaa agtcaactcc
1021 attacattg gcagcaggat ataacagagt aaagattgta cagctgttac tgcaacatg
1081 agctgatgc catgctaaag ataaagggtg tctggtacca ttacacaatg cctgttctta
1141 tggtcattat gaagtaactg aacttttgg caagcatggt gcctgtgtaa atgcaatgga
1201 cttgtggcaa ttcactcctc tcatgaggc agcttctaag aacagggttg aagtatgtc
1261 tcttctctta agttatggtg cagaccaaac actgctcaat tgcacaata aaagtgctat
1321 agacttggt cccacaccac agttaaaga aagattagca tatgaattta aaggccactc
1381 gttgctgcaa gctgcacgag aagctgatgt tactogaatc aaaaaacatc tctctctgga
1441 aatggtgaat tcaagcatc ctcaaacaca tgaaacagca ttgcattgtg ctgctgcac
1501 tccatatccc aaaagaaagc aaatatgtga actgttgta agaaaaggag caaacatcaa
1561 tgaaaagact aaagaattct tgactcctc gcacgtggca tctgagaaag ctcataatga
1621 tttgttgtaa gtagtggtga aacatgaagc aaaggtaat gctctggata atcttggtca
1681 gacttctcta cacagagctg catattgtgg tcatctaca acctgccgcc tactcctgag
1741 ctatgggtgt gatcctaaca ttatatccct tcagggttt actgctttac agatgggaaa
1801 tgaaaatgta cagcaactcc tccaaggagg tatctcatta ggtaattcag aggcagacag
1861 acaattgctg gaagctgcaa aggtgggaga tgcgaaact gtaaaaaaac tgtgtactgt
1921 tcagagtgtc aactgcagag acattgaagg gcgtcagtct acaccacttc atttgcagc
1981 tgggtataac agagtgtccg tgggtggaata tctgctacag catggagctg atgtgcatgc
2041 taaagataaa ggaggccttg tacctttgca caatgcatgt tcttatggac attatgaagt
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2221 tgggtgcagac cctacaaaaa aaaacaggga tggaaatact ctttggatc ttgttaaaga
2281 tggagataca gatattcaag atctgcttag gggagatgca gctttgctag atgtgccaa
2341 gaagggtgtg ttagccagag tgaagaagt gtctctcct gataatgtaa attgccgga
2401 tacccaaggc agacattcaa cacctttaca tttagcagct ggttataata atttagaagt
2461 tgcagagtat ttgttacaac acggagctga tgtgaatgcc caagacaaag gaggacttat
2521 tcctttacat aatgcagcat cttacgggca ttagatgta gcagctctac taataaagta
2581 taatgcatgt gtcaatgcc cggacaaatg ggctttcaca cctttgcacg aagcagccca

2641 aaagggacga acacagcttt gtgctttgtt gctagcccat ggagctgacc cgactcttaa
2701 aaatcaggaa ggacaaacac ctttagattt agtttcagca gatgatgtca gcgctcttct
2761 gacagcagcc atgcccccat ctgctctgcc ctcttggtac aagcctcaag tgcataatgg
2821 tgtgagaagc ccaggagcca ctgcagatgc tctctcttca ggtccatcta gccatcaag
2881 cctttctgca gccagcagtc ttgacaactt atctgggagt tttcagaac tgtcttcagt
2941 agttagtcca agtgaacag aggggtgctc cagtttgag aaaaaggagg ttccaggagt
3001 agattttagc ataactcaat tcgtaaggaa tcttggaact gagcacctaa tggatatatt
3061 tgagagagaa cagatcactt tggatgtatt agttgagatg gggcacaagg agctgaagga
3121 gattggaatc aatgcttatg gacataggca caaactaatt aaaggagtcg agagacttat
3181 ctccggacaa caaggtctta acccatattt aactttgaac acctctggtg gtggaacaat
3241 tcttatagat ctgtctctg atgataaaga gtttcagtct gtggaggaag agatgcaaa
3301 tacagttcga gagcacagag atggaggtca tgcaggtgga atctcaaca gatacaaat
3361 tctcaagatt cagaagggtt gtaacaagaa actatgggaa agatacactc accggagaaa
3421 agaagtttct gaagaaaacc acaacatgc caatgaacga atgctatttc atgggtctcc
3481 ttttgtaat gcaattatcc acaaggctt tgatgaaagg catgctaca taggtggtat
3541 gtttgagct ggcatttatt ttgctgaaaa ctcttccaaa agcaatcaat atgtatatgg
3601 aattggagga ggtactgggt gtccagtcca caaagacaga tctgttaca ttgccacag
3661 gcagctgctc ttgtccggg taacctggg aaagctcttc ctgcagtcca gtgcaatgaa
3721 aatggcacat tctctccag gtcatcactc agtcactggt aggccagtg taaatggcct
3781 agcattagct gaatatgtta ttacagagg agaacaggct tatctgagt attaatatc
3841 ttaccagatt atgaggcctg aaggtatggt cgatggataa atagtattt taagaaacta
3901 attccactga acctaaaac atcaaagcag cagtggcctc tacgtttac tctttgctg
3961 aaaaaaaatc atcttgccca caggcctgtg gcaaaaggat aaaaatgtga acgaagtta
4021 acattctgac ttgataaagc ttaataatg tacagtgtt tctaatatt tctgtttt
4081 tcagcacttt aacagatgcc attccagggt aaactgggt gtctgtacta aattataaac
4141 agagttaact tgaacctttt atatgttatg cattgattct aacaaactgt aatgccctca
4201 acagaactaa tttactaat acaactatgt gtctttaa acacagcatt tacactgaat
4261 acaatttcat ttgtaaaact gtaataaga gctttgtac tagcccagta ttatttaca
4321 ttgctttgta atataaatct gtttagaac tgcagcgggt tacaaaattt ttcatatgt
4381 attgttcatc tatacttcat cttacatcgt catgattgag tgatctttac attgattcc
4441 agaggctatg ttcagttgtt agttgggaaa gattgagta tcagatttaa ttgccgatg
4501 ggagccttta tctgtcatta gaaatcttc tcatttaaga acttatgaat atgctgaaga
4561 ttaatttgt gataccttg tatgtatgag acacattcca aagagctcta actatgatag
4621 gtctgatta ctaaagaagc ttcttactg gcctcaattt ctagcttca tgttgaaaa
4681 tttctgcag tcttctgtg aaaattagag caaagtgtc ctgttttta gagaaactaa
4741 atcttgctgt tgaacaatta ttgtgttctt tcatggaac ataagtagga tgttaacatt
4801 tccagggtgg gaagggtaat cctaaatcat tcccaatct attctaatta ccttaaatct
4861 aaaggggaaa aaaaaatca caaacaggac tgggtagttt ttatcctaa gtatatttt
4921 tctgttctt ttacttgggt ttattgctg tatttatagc caatctatac atcatgggta
4981 aacttaacc agaactataa aatgtagtgt tttagtccc cttaggcct cctgaatggg
5041 caagtgcagt gaaacagggt ctctctgctc ctgggtttc tctccatgat gttatgcca
5101 attggaaata tgctgtcagt ttgtgcacca tatggtgacc acgcctgtgc tcagttggc
5161 agctatagaa ggaaatgctg tccataaaa tgccatccct atttctaata taacactctt
5221 ttccaggaag catgttaag catctgtta cagagacata catccattat ggcttgcaa
5281 tctctttt ttgttgactc tagtccctt caaagtcgag gaaagatctt tactactta
5341 atgaggacat tccccatcac tgtctgtacc agttaccct tattttacgt ttattcagt
5401 ctgtaatta actggccctt tgcagtaact tgtacataaa gtgctagaaa atcatgtcc

5461 ttgtcctgag taagagttaa tcagagtaag tgcatttctg gagttgttc tgtgatgtaa
5521 attatgatca ttatttaaga agtcaaatcc tgatcttgaa gtgctttta tacagctctc
5581 taataattac aaatatccga aagtcatttc ttggaacaca agtggagtat gccaaatttt
5641 atatgaattt ttcagattat ctaagcttcc aggttttata attagaagat aatgagagaa
5701 ttaatggggt ttatatttac attatctctc aactatgtag cccatattac tcaccctatg
5761 agtgaatctg gaattgcttt tcatgtgaaa tcattgtggt ctatgagttt acaatactgc
5821 aaactgtgtt attttatcta aaccattgct taatgagtgt gttttccat gaatgaatat
5881 accgtgggtc atatgttagc atggcagcat ttcagatag cttttgttt gtgggaagt
5941 tggggtttg gggggagggg gagtattagt acgttgcatg gaatagccta cttataatg
6001 atgggaatgc ttttctttt gtttgggat tttttttt gaagtgaat ttaactttt
6061 gtgccagtag tactattata cccatcttca gtgtcttact tgtactgtat caaattccat
6121 accctcattt aattcttaat aaaactgttc acttgtaaaa aaaaaaaaaa aaaaaaaaaa
6181 aaaaaaaaaa

Sequence 6— Human mRNA sequence of VPARP

1 cgcccgccca gccccggggg cagggaaagc ctaaattacg gaattaccgc gagcaaggag
61 cgcggaatcg gggagcgtcc ggagctagct ggatcctcta ggcaggatgg tgatgggaat
121 ctttgcaaat tgtatcttct gtttgaagt gaagtactta cctcagcagc agaagaaaaa
181 gctacaaact gacattaagg aaaatggcgg aaagtttcc ttctgttaa atcctcagt
241 cacacatata atcttagata atgctgatgt tctgagtcag taccaactga attctatcca
301 aaagaaccac gttcatattg caaacccaga ttttatatgg aaatctatca gagaaaagag
361 actcttggat gtaaagaatt atgacctta taagcccctg gacatcacac cacctcctga
421 tcagaaggcg agcagttctg aagtgaaaac agaaggtcta tgcccggaac gtgccacaga
481 ggaggaagac actgtggaac tctactgagt tggtatgcag aatgttgaaa ttctcatct
541 tctcaagat ttgaagttg caaaatataa caccttggag aaagtgggaa tggagggagg
601 ccaggaagct gtggtggtgg agcttcagtg ttcgctggac tccagggact gtccttctc
661 gatatctca cacttctcc tggatgatgg catggagact agaagacagt ttgtataaa
721 gaaaacctct gaagatgcaa gtgaatactt tgaaaattac attgaagaac tgaagaaaca
781 aggatttcta ctaagagaac atttcacacc tgaagcaacc caattagcat ctgaacaatt
841 gcaagcattg ctttggagg aagtcatgaa ttcaagcact ctgagccaag aggtgagcga
901 tttagtagag atgatttggg cagaggccct gggccacctg gaacacatgc ttctcaagcc
961 agtgaacagg attagcctca acgatgtgag caaggcagag gggattctcc ttctagtaaa
1021 ggcagcactg aaaaatggag aaacagcaga gcaattgcaa aagatgatga cagagtttta
1081 cagactgata cctcacaag gcacaatgcc caaagaagt aacctgggac tattggctaa
1141 gaaagcagac ctctgccagc taataagaga catggttaat gtctgtgaaa ctaattgtc
1201 caaacccaac ccaccatccc tggccaaata ccgagcttg aggtgcaaaa ttgagcatgt
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1321 taagagccca gtggatgtct tgcagatatt tagagtggc agagtgaatg aaaccacaga
1381 gttttgagc aaacttggta atgtgaggcc ctgttgcac ggttctctg tacaaaacat
1441 cgtgggaatc ttgtgtcag ggttgcctt acccaaagta gtggaagatc gtggtgtgca
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1621 agccctcgga aagtgtatgg acttacatga gaaggacttt cccttaactg aagcaccacc
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5341 ataatagata attataatga aacttcatta aggtttcatt cagtgtagca attactgtct

5401 taaaaatta agtggagaa gaattacttt aatcaactaa caagcaataa taaatgaaa
5461 cttaaaataa aaaaaaaaaa aaaaaaaaaa